

SN. 09/737,279

ATTORNEY DOCKET NO. MITS:024

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a cover connected to the housing and covering the one end portion of the one shaft, and engaging the bearing on an outwardly facing side thereof to pinch the bearing axially inwardly against the urging member.

11. (Amended) The continuously variable transmission according to claim 10, further comprising a flange extending radially from an inwardly facing side of the end wall toward the bearing mounting hole, the flange supporting the urging member from the inwardly facing side, wherein the urging member is disposed between the flange and the bearing.--

REMARKS

Claims 1-11 remain pending in this application for which applicants seek reconsideration.

Amendment

Claims 1, 7, 8, 10, and 11 have been amended to more clearly define the present invention. Specifically, claim 1 has been amended to clarify the structural arrangement of the first flange in relation to the bearing retainer. In this regard, claim 1 clarifies the position of the first outwardly facing side and the first inwardly facing side of the end wall, and further clarifies that the first flange extends radially from the first inwardly facing side toward the first bearing mounting hole. Moreover, claim 1 further clarifies that the bearing retainer is provided on the first outwardly facing side of the end wall and engages the first bearing to pinch the first bearing against the first flange. Claims 7 and 8 similarly further clarify the structural arrangement of the second flange in relation to the end wall and the second bearing mounting hole. Claim 10 has been amended to clarify the structural arrangement of the cover in relation to the bearing.

The specification also has been amended to conform with the drawing amendment. Specifically, the specification now identifies the widths W_1 and W_2 .

No new matter has been introduced.

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Drawing Objections

Applicants propose amending Figs. 1 and 3 to remove the non-English markings and more properly indicate the elements 54 and 120 in Fig. 1 and include the legend "Prior Art" in Fig. 3. New Fig. 1B clearly illustrates the depth (D_2) of the second bearing mounting hole being shorter than the combined thickness (W_2) of the second bearing and the urging member in the axial direction. Fig. 1A similarly illustrates the depth (D_1) of the first bearing mounting hole being shorter than the thickness (W_1) of the first bearing in the axial direction. No new matter has been introduced. Applicants submit that the proposed drawing amendment obviates all of the examiner's drawing objections.

Art Rejection

Claim 1 was rejected under 35 U.S.C. § 102(b) as anticipated by Newman (USP 5,006,092) and claims 2-11 were rejected under 35 U.S.C. § 103(a) as unpatentable over Neuman, Lamers (USP 5,334,108), and Hattori (USP 4,913,686). Applicants traverse these rejections because these references would not have disclosed or taught the structural configuration of the first flange in relation to the bearing retainer, as called for in claim 1, and of the cover in relation to the bearing, as called for in claim 10.

Claim 1 calls for a first flange that extends radially from the first inwardly facing side toward the first bearing mounting hole and a bearing retainer provided on the first outwardly facing side of the end wall. The bearing retainer projects radially inwardly toward the first bearing mounting hole and engages the first bearing to pinch the first bearing against the first flange. Newman does not disclose or teach such a structure. First, Newman has its first flange formed on the outwardly facing side of its end wall rather than on the inwardly facing side. Second, Newman's bearing retainer (outlined in orange in the examiner's illustration (Paper No. 6)) does not engage the bearing, but rather against its first flange or end wall. Because Newman's bearing retainer engages the end wall, it cannot pinch the first bearing against the first flange. Applicants believe that Newman's threaded nut corresponds closer to the claimed retainer, but this threaded nut engages and pushes the bearing away from its first flange rather than pinching the bearing against its first flange. Accordingly, even if Newman's threaded nut is

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deemed to correspond to the claimed retainer, it would not have taught pinching the first bearing against the first flange.

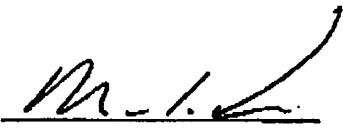
Claim 10 calls for an elastically deformable urging member in contact with an **inwardly** facing side surface of the bearing, and a cover connected to the housing and covering the one end portion of the one shaft, and engaging the bearing on an **outwardly** facing side thereof to pinch the bearing axially inwardly against the urging member. The combination would not have taught this structure. First, Newman does not have a cover that engages the bearing from the outwardly facing side. Indeed, Newman's element 40, which the examiner alleged to correspond to the claimed cover, is a **drive gear**, and clearly does not cover the end portion of its shaft. See Newman's Column 4, line 42. Second, Newman's urging member does not contact the inwardly facing side surface of the bearing. Third, Lamers would not have alleviated Newman's shortcomings. In Lamers, a threaded bolt engages the outwardly facing side surface of the bearing, similar to the Newman's threaded bolt that engages its upper bearing.

Conclusion

Applicants submit that claims 1-11 patentably distinguish over the applied references and thus urge the examiner to enter this amendment and issue an early Notice of Allowance. Should the examiner have any issues concerning this reply or any other outstanding issues remaining in this application, applicants urge the examiner to contact the undersigned to expedite prosecution.

Respectfully submitted,

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ATTACHMENT
MARKED UP VERSION

IN THE SPECIFICATION:

Page 4, the paragraph appearing in lines 21-22 has been amended as follows:

--Fig. 1 is a sectional view of the main part of a vehicular belt-type continuously variable transmission (CVT) according to an embodiment of the invention;

Fig. 1A is an enlarged view of a bearing located in the upper part of the CVT of Fig. 1;

Fig. 1B is an enlarged view of a bearing located in the lower part of the CVT of Fig. 1;--

Page 11, the third full paragraph (as previously amended) has been amended as follows:

--Referring to Figs. 1, 1A and 1B, prior[Prior] to description of an assembling procedure, the following points are noted. The end wall 2a of the housing 2 has a first contact surface where the flange 52 is in contact with the bearing 12 and a second contact surface where the end wall 2a is contact with the cover 116 on the secondary shaft 84 side. The first contact surface and the second contact surface are reference surfaces P1 and P2, respectively. The distance between the reference surfaces P1 and P2 is determined accurately. Working is performed to form the bearing mounting holes 54 and 120 with the first contact surface and second contact surface used as references, respectively. Specifically, the bearing mounting hole 54 on the primary shaft 4 side is formed in such a manner that its depth D_1 (i.e., the distance between the outside surface of a bearing support portion 55 of the end wall 2a and the reference surface P1) is slightly shorter than the width W_1 of the bearing 12. The bearing mounting hole 120 on the secondary shaft 84 side is formed in such a manner that its depth D_2 (i.e., the distance between the reference surface P2 and the flange 122) is shorter than the width W_2 of the bearing 86 plus the thickness of the wave spring 118 in a free state.--